

WHAT IS CLAIMED IS:

1. An imager apparatus in which an optical member protecting an imaging element is vibrated to remove dust from the optical member, said apparatus

5 comprising:

a vibration member which vibrates the optical member in a plurality of conditions;

a photographing-mode setting unit which sets a photographing mode; and

10 a vibration-condition changing unit which changes the condition in which the vibration member vibrates the optical member, in accordance with the photographing mode set by the photographing-mode setting unit.

2. The imager apparatus according to claim 1, wherein the photographing-mode setting unit sets, as the photographing mode, one of a continuous photographing mode and a single-shot photographing mode.

3. The imager apparatus according to claim 1, wherein the vibration-condition changing unit changes time intervals at which the vibration member vibrates the optical member, in accordance with the photographing mode that has been set.

4. The imager apparatus according to claim 1, wherein the vibration-condition changing unit changes a frequency at which the optical member is vibrated, in accordance with the photographing mode that has been

set.

5. An imager apparatus in which an optical member protecting an imaging element is vibrated to remove dust from the optical member, said apparatus

5 comprising:

a vibration member which vibrates the optical member;

a photographing-mode setting unit which sets a photographing mode; and

10 an operation-prohibiting unit which prohibits the vibration member from operating, in accordance with the photographing mode set by the photographing-mode setting unit.

6. The imager apparatus according to claim 5,
15 wherein the photographing-mode setting unit sets, as the photographing mode, one of a low-noise operation mode and a non-low-noise operation mode.

7. The imager apparatus according to claim 5,
wherein the photographing-mode setting unit sets,
20 as the photographing mode, one of a still-picture photographing mode and a moving-picture photographing mode.

8. The imager apparatus according to claim 5,
wherein the operation-prohibiting unit allows the
25 vibration member to operate every time an photographing operation is performed after the photographing-mode setting unit selects a single-shot photographing mode,

and allows the operation-prohibiting unit to operate at only the first photographing and prohibits the vibration member from operating at the second photographing and any photographing following the second photographing.

9. An imager apparatus in which an optical member protecting an imaging element is vibrated to remove dust from the optical member, said apparatus comprising:

a vibration member which vibrates the optical member in a plurality of conditions;

a photographing-condition setting unit which sets a photographing mode; and

a vibration-condition changing unit which changes the condition in which the vibration member vibrates the optical member, in accordance with the photographing condition set by the photographing-condition setting unit.

10. The imager apparatus according to claim 9, wherein the photographing-condition setting unit sets a resolution for images to be photographed.

11. The imager apparatus according to claim 9, wherein the photographing-condition setting unit sets time intervals at which the optical member is vibrated, in accordance with the photographing condition that has been set.

12. An imager apparatus in which an optical member

protecting an imaging element is vibrated to remove dust from the optical member, said apparatus comprising:

5 a vibration member which vibrates the optical member;

a photographing-condition setting unit which sets a photographing mode; and

10 an operation-timing setting unit which sets a timing at which the vibration member is operated, in accordance with the photographing condition set by the photographing-condition setting unit.

13. The imager apparatus according to claim 12, wherein the photographing-condition setting unit sets conditions for an exposure operation or selects a bulb
15 photographing.

14. The imager apparatus according to claim 12, wherein the operation-timing setting unit causes the vibration member to operate during an exposure operation, in accordance with the conditions set by the
20 photographing-condition setting unit.

15. The imager apparatus according to claim 12, wherein the operation-timing setting unit causes to the vibration member to operate intermittently during an exposure operation, in accordance with the conditions
25 set by the photographing-condition setting unit.